ISO

Technical Committee 184: Industrial automation systems and integration
Subcommittee 4: Industrial data

ISO TC 184/SC4 DRAFT RESOLUTIONS
FOR SC4 MEETING
2000-10-20
Charleston, S.C.

SC4 Resolution "A"

Currently there are no Project Leader or Editor changes requested at the present.

SC4 Resolution "B"

Permission to Include Photographs in SC4 Documents
From the United States

Introduction:

Several APs currently under development (in particular, several of the Shipbuilding APs) include some photographs whose use would greatly facilitate understanding the document. AP216 and AP218, in particular, are both currently being prepared for CD ballot and their developers are seeking guidance as to whether they can include photographs in the documents.

ISO Directives do permit inclusion of photographs "only if it is not possible to convert them into line drawings" [IDP3: 1997, 6.6.4.2]. QC last considered this issue at a workshop in 12/98 at NIST (see QC N076). This is the relevant text from the minutes of that meeting:

> "It was noted that ID3: 1997 now permits the inclusion of photographs in standards, if the information in the standard cannot be conveyed using line drawings. There is at least one AP that includes photographs - AP216 has pictures of ships and ship components to illustrate its requirements. QC needs to determine whether photographs should be allowed in SC4 standards."

Although QC discussed the matter at that time, no formal action was taken and no SC4 Resolution or guidance was issued.

Objective:

To permit the inclusion of black and white photographs in SC4 Documents.

Resolution:

SC4 resolves that black and white photographs may be included in SC4 documents when such photographs will enhance the understandability and use of those documents.

SC4 directs the Quality Committee to modify the Supplementary Directives to explicitly permit black and white photographs to be included in SC4 documents in accordance with the above. SC4 directs the Quality Committee to document a method for including such photographs that assures legible reproduction on computer displays and printers.

SC4 Resolution "C"

SC4 Elimination of short names requirement
NIST (former SC4 Secretariat)

Introduction:

This resolution's purpose is to eliminate the need for SC4 to register short names and eliminate the requirement that short names be specified in SC4 standards containing implementable EXPRESS.

NIST maintains a database of short names for entity data types within EXPRESS schemas in SC4 standards. This database and the applications for accessing it are collectively referred to as the SC4 Short Names Registry, or simply the Short Names Registry. SC4 standards whose EXPRESS specifications are intended to be implemented and populated with data are required to include a unique mnemonic short name of six characters or less for each EXPRESS entity long name. Part 21 in turn requires that all exchange files containing data populating any such EXPRESS schema must use that schema's short names as specified in the SC4 standard within which the schema is defined.

The idea of having short names for EXPRESS entities originated in the Implementation Specifications working group (WG7) of SC4. Short names were introduced because some SC4 standards have very long names for their EXPRESS entities. WG7 was worried that the use of these names would lead to very large exchange files, as these names may occur very often in the file. WG7's argument in favor of the short names requirement was that specification of short names for EXPRESS entities gives SC4 standards developers the opportunity to use meaningful long names in their EXPRESS models, but without the penalty of then having to use these long names in the exchange file.

The short names requirement should now be eliminated for the following reasons:

1. Data compression algorithms exist that are more effective at reducing exchange file size than short names. Software implementing these algorithms is cheap and easy to obtain for all common computers and operating systems.

2. SC4 standards containing short names are currently required to have an annex containing a short names table as well as another annex containing the Short Names Registry URL. This extra verbiage Imposes yet another burden on SC4 part editors and the Quality Committee.

3. The value added to SC4 standards by the short names requirement does not justify the Short Names Registry's maintenance costs. Therefore NIST plans to phase out Short Names Registry maintenance In order to better focus its limited resources on technical activities that are of greater benefit to SC4. If the short names requirement were to remain in effect, SC4 would have to commit to establishing a more permanent maintainer for the Short Names Registry.

Objectives:

Specific objectives of this resolution are:

1. Eliminate a documentation requirement of questionable value.
2. Reduce the verbosity of SC4 standards.
3. Eliminate the need for SC4 to allocate resources toward registering short names and maintaining a short names database once NIST stops maintaining the Short Names Registry.

Resolution:

SC4 resolves to eliminate the requirement that SC4 standards specify unique short names for each EXPRESS entity long name. To remove the short names requirement:

1. SC4 directs WG11 to amend ISO 10303-21 to no longer require the use of short names in exchange Files whenever short names are specified for an EXPRESS schema.

2. SC4 directs its Quality Committee to amend the Supplementary Directives, AP and AIC development Guidelines, AIM guidelines, and any other applicable standing documents to remove all requirements For standardizing short names of EXPRESS entities.